

1 **EU - TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
Directive 2014/34/EU**

3 EU - Type Examination Certificate **Baseefa15ATEX0172X – Issue 3**
Number:

3.1 In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary Certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016.

4 Product: **Euroswitch Vibration Sensors – VS Series**

5 Manufacturer: **Longvale Limited**

6 Address: **Lancaster Park, Needwood, Burton-upon-Trent, Staffordshire, DE13 9PD**

7 This re-issued certificate extends EC Type Examination Certificate No. **Baseefa15ATEX0172X** to apply to product designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

8 SGS Fimko Oy, Notified Body number 0598, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

8.1 The original certificate was issued by SGS Baseefa Ltd (UK Notified Body 1180). It, and any supplements previously issued by SGS Baseefa Ltd have been transferred to the supervision of SGS Fimko Oy (EU Notified Body 0598). The original certificate number is retained.

The examination and test results are recorded in confidential Report No. **See certificate history.**

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:


EN IEC 60079-0:2018 EN 60079-1:2014 EN 60079-31:2014

except in respect of those requirements listed at item 18 of the Schedule.

10 If the sign “X” is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

11 This EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of the product shall include the following:

 **II 2 GD Ex db IIC T6* Gb**

Ex tb IIIC T85°C* Db (Ta -40°C to +70°C)* IP66/67/68

*** Alternative Temperature Class and ambient temperature markings are permitted – see schedule**

SGS Fimko Oy Customer Reference No. **5323**

Project File No. **21/0380**

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Tuomas Hänninen
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Schedule

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Certificate Number Baseefa15ATEX0172X – Issue 3

15 Description of Product

The accelerometer units are all manufactured from stainless steel and comprise either:-

A cylindrical enclosure with a circular mounting plate, and a threaded cover locked by a M4 x 6mm long socket head screw.

The Model VS-10GAR1-321-P1R1000020 enclosure houses a single accelerometer module in a stainless steel mounting insert, and a two way terminal assembly.

The Model VS-10GAR3-321-P1R1000267 enclosure houses three separate accelerometers in a stainless steel mounting insert, and three individual two way terminal assemblies.

An M20 or 1/2" NPT cable entry is provided to accommodate a suitably certified flameproof cable entry device. Internal and external earth connection facilities are provided.

These units may have a variety of Temperature Class/ambient combinations as follows:

T6/T85°C, Ta = -40°C to +70°C

T5/T100°C, Ta = -40°C to +85°C

T4/T135°C, Ta = -40°C to +90°C

T3/T200°C, Ta = -40°C to +90°C

or

The model VS-W has an alternative body consists of a cylindrical enclosure that is directly mounted via a threaded hole in the base, and a threaded cover. This model houses a single accelerometer potted into the bottom of the enclosure along with a 4 way terminal block for electrical connection to the accelerometer. The W series of bodies come with either a side entry point, designated WL, or a cover (back) entry point, designated W, either entry can be M20 or 1/2" NPT

These units may have a variety of Temperature Class/ambient combinations as follows:

T6/T85°C, Ta = -55°C to +70°C

T6/T85°C, Ta = -20°C to +70°C

T5/T100°C, Ta = -55°C to +85°C

T4/T135°C, Ta = -55°C to +90°C

T3/T200°C, Ta = -55°C to +90°C

The accelerometer modules are rated 12-30Vdc with a 4-20mA output

Vibration Sensor - Part Number Matrix

A Longview brand

	VSE	-	X	X	X	X	-	X	-	X
Stud Mount	M6x1.0	-	A				-		-	
	1/4"-28 UNF	-	B				-		-	
	M8x1.25	-	C				-		-	
	3/8"-24 UNF	-	D				-		-	
	1/4" NPT	-	E				-		-	
	M16x2.0 Quick Fit	-	F				-		-	
Certification	IECEX & ATEX Markings	-		3			-		-	
	ATEX/IECEX & UL/CSA Markings	-		B			-		-	
	Multiple Certification Markings (Exd only)	-		D			-		-	
	Other regional Exd certification			F - Z			-		-	
Housing Material	Stainless Steel 316L	-			2		-		-	
Certified Temp.	T6/T85°C = -20°C to +70°C	-				1	-		-	
	T4/T135°C = -55°C to +90°C	-				2	-		-	
Output	ICP Voltage - Acceleration Output - 10mV/g	-					-	1	-	
	ICP Voltage - Acceleration Output - 50mV/g	-					-	2	-	
	ICP Voltage - Acceleration Output - 100mV/g	-					-	3	-	
	ICP Voltage - Acceleration Output - 500mV/g	-					-	4	-	
	ICP Voltage - Velocity Output - 100 mV/ips (4mV/mm/s)	-					-	6	-	
	4-20mA - Acceleration Output - 5g RMS	-					-	A	-	
	4-20mA - Acceleration Output - 10g RMS	-					-	B	-	
	4-20mA - Acceleration Output - 20g RMS	-					-	C	-	
	4-20mA - Acceleration Output - 50g RMS	-					-	D	-	
	4-20mA - Acceleration Output - 5g Peak	-					-	E	-	
	4-20mA - Acceleration Output - 10g Peak	-					-	F	-	
	4-20mA - Acceleration Output - 20g Peak	-					-	G	-	
	4-20mA - Acceleration Output - 50g Peak	-					-	H	-	
	4-20mA - Velocity Output - 10mm/s RMS	-					-	J	-	
	4-20mA - Velocity Output - 20mm/s RMS	-					-	K	-	
	4-20mA - Velocity Output - 100mm/s RMS	-					-	L	-	
	4-20mA - Velocity Output - 0.5 ips RMS	-					-	M	-	
	4-20mA - Velocity Output - 1 ips RMS	-					-	N	-	
	4-20mA - Velocity Output - 2 ips RMS	-					-	O	-	
	4-20mA - Velocity Output - 10mm/s Peak	-					-	P	-	
	4-20mA - Velocity Output - 20mm/s Peak	-					-	Q	-	
	4-20mA - Velocity Output - 100mm/s Peak	-					-	R	-	
	4-20mA - Velocity Output - 0.5 ips Peak	-					-	S	-	
4-20mA - Velocity Output - 1 ips Peak	-					-	T	-		
4-20mA - Velocity Output - 2 ips Peak	-					-	U	-		
Connection Options	Wireable Connection Head - Top Entry 1/2" NPT	-					-		-	W
	Wireable Connection Head - Side Entry 1/2" NPT	-					-		-	WL
	Wireable Connection Head - Top Entry M20x1.5	-					-		-	W-M20
	Wireable Connection Head - Side Entry M20x1.5	-					-		-	WL-M20
	Customer specific (not affecting certification)						-		-	(X...)

16 Report Number

See certificate history.

17 Specific Conditions of Use

- When used in dust atmospheres the installer shall ensure that the cable entry threads are sealed to maintain the IP66/67 rating.

18 Essential Health and Safety Requirements

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product, and conformity is demonstrated in the report:

Clause	Subject
1.2.7	LVD type requirements
1.2.8	Overloading of equipment (protection relays, etc.)
1.4.1	External effects
1.4.2	Aggressive substances, etc.

19 Drawings and Documents

New drawings submitted for this issue of certificate:

Number	Sheet	Issue	Date	Description
ENG016		C	28/10/2021	Label Marking Details
VS-101		B	13/12/2019	VS WL Body - M20
VS-102		B	27/10/2021	VS WL Body - NPT
VS-103		B	27/10/2021	VS W Body
70-508		I	13/12/2019	Wireable W Head lid – M20
70-511		I	13/12/2019	Wireable W Head lid
70-548		B	13/12/2019	Wireable W Head lid – 1/2" NPT

Current drawings which remain unaffected by this issue:

Number	Sheet	Issue	Date	Description
VS-10GAR1-321-PIR1000020		C	22/09/15	GA, Single Axis Accelerometer Assembly
VS-10GAR1-321-PIR1000020-MD	1 - 2	A	22/09/15	Single Axis Label
VS-10GAR1-321-PIR1000020-INSRT		B	14/09/15	Single Axis Insert
VS-10GAR1-321-PIR1000020-HSG		C	22/09/15	Single Axis Housing (base)
VS-10GAR1-321-PIR1000020-LID		C	15/08/15	Housing Lid
VS-10GAR3-321-PIR1000267		C	22/09/15	GA, Triple Axis Accelerometer Assembly
VS-10GAR3-321-PIR1000267-MD	1 - 2	A	22/09/15	Triple Axis Label
VS-10GAR3-321-PIR1000267-INSRT		B	14/09/15	Triple Axis Insert
VS-10GAR3-321-PIR1000267-HSG		C	22/09/15	Triple Axis Housing (base)
ENG016		B	13/12/2019	Label Marking Details
GA-041		A	24/05/2018	VS-A Wireable GA
SWM9		A	12/12/2019	Vibration sensor part number matrix

These drawings are common to, and held with, IECEx BAS 15.0125X.

20 Certificate History

Certificate No.	Date	Comments
Baseefa15ATEX0172X	29 September 2015	The release of the prime certificate. The associated test and assessment against the requirements of EN 60079-0:2012+A11:2013, EN 60079-1:2007 and EN 60079-31:2014 is documented in Test Report No. GB/BAS/ExTR15.0273/00.
Baseefa15ATEX0172X/1	3 July 2018	To add an alternative body style for a single axis accelerometer, based on the W range of wireable switches. The accelerometer modules are rated 12-30Vdc with a 4-20mA output. To include a Part Number Matrix for the accelerometers. Baseefa certification report GB/BAS/ExTR18.0164/00 refers.
Baseefa15ATEX0172X/2	9 January 2020	To allow the part number matrix to be amended to a new format. To allow an alternative marking of ambient temperature for the temperature class T6 of Ta = -20°C to +70°C. To assess the equipment against the standard EN 60079-1:2014. Baseefa certification report GB/BAS/ExTR19.0344/00 refers.
Baseefa15ATEX0172X Issue 3	3 December 2021	To assess the equipment against EN IEC 60079-1:2018. To assess the equipment for the degree of protection IP68 at 30m for 24 hours. SGS Baseefa certification report GB/BAS/ExTR21.0180/00 refers.
For drawings applicable to each issue, see original of that issue.		